

Work Order ID 153801

Friday, November 25, 2016 7:43:19 AM

153801

Page 1

Item ID: D3884-2 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle, Inside RH
 Start Date: 12/5/2016 Start Qty: 8.00 ***8*** Cust Item ID:
 Required Date: 12/12/2016 Req'd Qty: 8.00 ***8*** Customer:
 Reference:

Approvals: Process Plan: DAS 21 9-89 Date: NOV 29 2016 Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3884	C

100	HAAS CNC VERTICAL MACHINING #1	0.03							DAS 08 9-89
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100

HAAS 1

HAAS CNC vertical machine #1

Memo

Program Batch No. B153801
 Double check by: [Signature]
 1-Machine Step No 1 per Folio FA819 and inspect per attached Dimension Sheets
 2-Machine Step No 2 per Folio FA819 and inspect per attached Dimension Sheets
 3-Machine Step No 3 per Folio FA819 and inspect per Dimension Sheets

110	QC2- Inspect parts off machine FAI/FAIB	0.00							DAS 08 9-89
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110

QC

Quality Control

Memo

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

153801

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N900040100

Setup Start *NS1*

Stop *NS2*

8

Cust Item ID:

Start Date: 12/5/2016 **Start Qty:** 8.00

Required Date: 12/12/2016 **Req'd Qty:** 8.00

8

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Insp.
Stamp

QC8- Inspect parts - second check

0.00

120

Memo

0.03

QC

Quality Control

DAS
14
9-89

17/01/12

Chemical Conversion Coat per QSI005 4.1

0.00

130

Memo

0.16

HandFinish

Hand Finishing

X14 ~~6~~ 2016/01/10
BER

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Page 3

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
140									
Powdercoat	Memo	0.04							
Powder Coating	***MASK INSIDE SURFACES OF SADDLE PRIOR TO APPLICATION OF POWDER COAT AS PER INDICATED ON DWG (SEE NOTE 2)*** ***DO NOT MASK INSIDE FLANGE SURFACE*** 11/30/16 2:20 START TIME: _____ OVEN TEMPERATURE: 325 FINISH TIME: 2:50								14 17-01-25. 34 9-88
150	QC3- Inspect Part Finish	0.00							
150									
QC	Memo	0.01							
Quality Control									14 DAS 38 9-88

JAN 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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160	Identify as per dwg & Stock Location: <u>51402</u>	0.00							
160									
Packaging	Memo	0.01				14		JAN 31 2017	
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.13							
Quality Control									

17/01/31 *[Signature]*
ME
17-1-31

DQA: _____ Date: _____



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OTHER :																					

Picklist Print

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Work Order ID: 153801

153801

Parent Item: D3884-2

D3884-2

Parent Item Name: Saddle, Inside RH

Start Date: 12/5/2016

Required Date: 12/12/2016

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP RevA: New issue DD verified by:EC
15.05.20 remove inside powdercoat DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D6101-017

Manufactured No

Each 23.0000

8

D6101-017

DAS

14

9-89

Saddle Billet

Location

Loc Qty

Loc Code

MAT044

4

152619

4

MAT046

19

144956

2

151100

7

152286

10

153298

3

17/01/09

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation			Disposition																		
2AC 2F 2B-2																					
						Completed By															
						Lead hand / Supervisor Approval Verification															
QC / QA Coordinator Approval																					
Root Cause			FAULT CATEGORY																		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER :																					

DART AEROSPACE LTD		Work Order:	153801
Description: Saddle, Inboard, RH		Part Number:	D3884-2
Inspection Dwg: D3884	Rev. C	Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	5 Date
A	2.870	2.880		2.875	2.875	2.875	2.875		2.875
B	1.433	1.443		1.438	1.438	1.438	1.438		1.438
C	0.638	0.658		0.647	0.647	0.647	0.647		0.647
D	3.895	3.905		3.900	3.900	3.900	3.900		3.900
E	0.257	0.262		0.258	0.258	0.258	0.258		0.258
F	0.605	0.625		0.615	0.615	0.615	0.615		0.615
G	1.120	1.130		1.125	1.125	1.125	1.125		1.125
H	2.245	2.255		2.250	2.250	2.250	2.250		2.250
I	2.000	2.020		2.000	2.000	2.000	2.000		2.000
J	0.140	0.175		0.150	0.150	0.150	0.150		0.150
K	1.265	1.285		1.265	1.265	1.265	1.265		1.265
L	0.115	0.135		0.124	0.124	0.124	0.124		0.124
M	0.240	0.260		0.248	0.248	0.248	0.248		0.248
N	0.110	0.140		0.135	0.135	0.135	0.135		0.135
O	0.240	0.260		0.247	0.252	0.251	0.251		0.251
P	2.826	2.886		2.856	2.856	2.856	2.856		2.856
Q	0.178	0.198		0.188	0.188	0.188	0.188		0.188
R	0.140	0.165		0.152	0.152	0.151	0.152		0.152
S	0.720	0.780		0.760	0.760	0.760	0.760		0.760
T	1.220	1.280		1.258	1.258	1.258	1.258		1.258
U	1.245	1.255		1.250	1.250	1.250	1.250		1.250
V	5.990	6.010		6.000	6.000	6.000	6.000		6.000
W	2.495	2.505		2.500	2.500	2.500	2.500		2.500
X	0.490	0.510		0.501	0.500	0.500	0.500		0.500
Y	0.020	0.040		0.030	0.030	0.030	0.030		0.030
Z	0.313	0.318		0.314	0.314	0.314	0.314		0.314
AA	0.760	0.765		0.765	0.765	0.765	0.765		0.765
AB	0.215	0.220		0.216	0.216	0.216	0.217		0.218
AC	0.316	0.321		0.317	0.317	0.317	0.317		0.317
AD	1.745	1.755		1.750	1.750	1.750	1.750		0.317
AE	0.990	1.010		0.999	0.999	0.999	0.999		0.999
AF									
Accept/Reject									

Measured by: DA	Audited by: 14
Date: 17-01-10	Date: 17/01/12

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	15.09.09	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order: 153801
Description: Saddle, Inboard, RH		Part Number: D3884-2
Inspection Dwg: D3884	Rev. C	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	By	Date
A	2.870	2.880		2.875	2.875	2.875	2.875		2.875
B	1.433	1.443		1.438	1.438	1.438	1.438		1.438
C	0.638	0.658		0.647	0.647	0.647	0.647		0.647
D	3.895	3.905		3.900	3.900	3.900	3.900		3.900
E	0.257	0.262		0.258	0.258	0.258	0.258		0.258
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H	2.245	2.255		2.250	2.250	2.250	2.250		2.250
I	2.000	2.020		2.000	2.000	2.000	2.000		2.000
J	0.140	0.175		0.150	0.150	0.150	0.150		0.150
K	1.265	1.285		1.265	1.265	1.265	1.265		1.265
L	0.115	0.135		0.124	0.123	0.123	0.124		0.125
M	0.240	0.260		0.248	0.248	0.248	0.248		0.248
N	0.110	0.140		0.135	0.135	0.135	0.135		0.135
O	0.240	0.260		0.251	0.252	0.252	0.251		0.250
P	2.826	2.886		2.856	2.856	2.856	2.856		2.856
Q	0.178	0.198		0.188	0.188	0.188	0.188		0.188
R	0.140	0.165		0.152	0.151	0.151	0.152		0.152
S	0.720	0.780		0.760	0.760	0.760	0.760		0.760
T	1.220	1.280		1.258	1.258	1.258	1.258		1.258
U	1.245	1.255		1.250	1.250	1.250	1.250		1.250
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W	2.495	2.505		2.500	2.500	2.500	2.500		2.500
X	0.490	0.510		0.500	0.500	0.500	0.500		0.500
Y	0.020	0.040		0.030	0.030	0.030	0.030		0.030
Z	0.313	0.318		0.314	0.314	0.314	0.314		0.314
AA	0.760	0.765		0.765	0.765	0.765	0.765		0.765
AB	0.215	0.220		0.218	0.218	0.218	0.218		0.218
AC	0.316	0.321		0.317	0.317	0.317	0.317		0.317
AD	1.745	1.755		1.750	1.750	1.750	1.750		1.750
AE	0.990	1.010		0.999	0.999	0.999	0.999		0.999
AF									
Accept/Reject									

Measured by: <u>B</u>	DAS	Audited by: <u>14</u>
Date: <u>17-01-10</u>	08	Date: <u>17/01/12</u>
	9-89	

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	15.09.09	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order:	153801
Description: Saddle, Inboard, RH		Part Number:	D3884-2
Inspection Dwg: D3884 Rev. C		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing and record below:

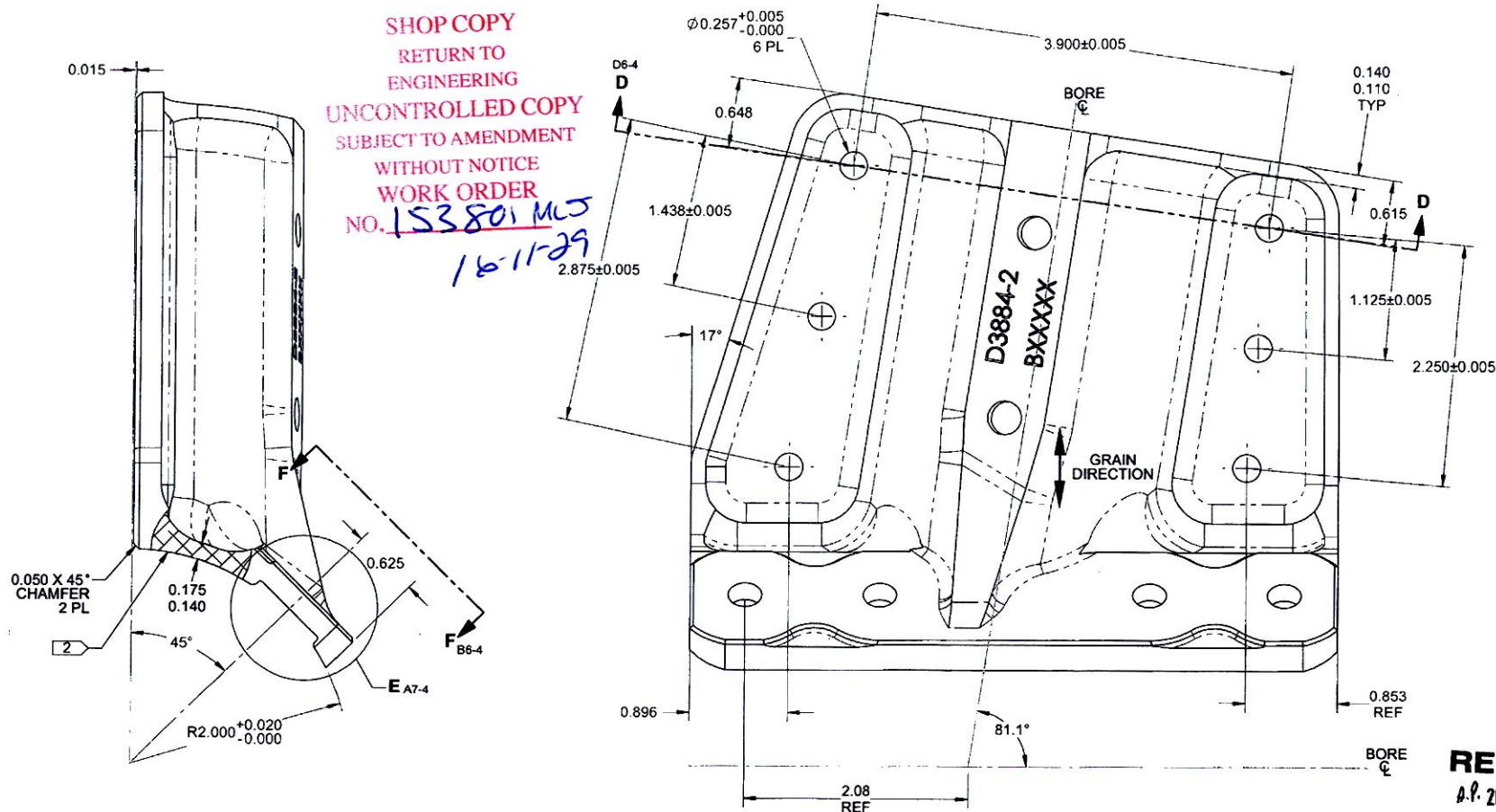
Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				11	12	13	14		
A	2.870	2.880		2.875	2.875	2.875	2.875		
B	1.433	1.443		1.438	1.438	1.438	1.438		
C	0.638	0.658		0.647	0.647	0.647	0.647		
D	3.895	3.905		3.900	3.900	3.900	3.900		
E	0.257	0.262		0.258	0.258	0.258	0.258		
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H	2.245	2.255		2.250	2.250	2.250	2.250		
I	2.000	2.020		2.000	2.000	2.000	2.000		
J	0.140	0.175		0.150	0.150	0.151	0.150		
K	1.265	1.285		1.265	1.265	1.265	1.265		
L	0.115	0.135		0.124	0.124	0.124	0.124		
M	0.240	0.260		0.248	0.248	0.248	0.248		
N	0.110	0.140		0.135	0.135	0.135	0.135		
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S	0.720	0.780		0.760	0.760	0.760	0.760		
T	1.220	1.280		1.258	1.258	1.258	1.258		
U	1.245	1.255		1.250	1.250	1.250	1.250		
V	5.990	6.010		6.000	6.000	6.000	6.000		
W	2.495	2.505		2.500	2.500	2.500	2.500		
X	0.490	0.510		0.500	0.500	0.500	0.500		
Y	0.020	0.040		0.030	0.030	0.030	0.030		
Z	0.313	0.318		0.314	0.314	0.314	0.314		
AA	0.760	0.765		0.765	0.765	0.765	0.765		
AB	0.215	0.220		0.218	0.218	0.218	0.218		
AC	0.316	0.321		0.317	0.317	0.317	0.317		
AD	1.745	1.755		1.750	1.750	1.750	1.750		
AE	0.990	1.010		0.999	0.999	0.999	0.999		
AF									
Accept/Reject							DAS		

Measured by:	H.e	DAS
Date:	17-01-11	08 9-89

Audited by:	14 9-89
Date:	17/01/12

Rev	Date	Change	Revised by	Approved
A	09.10.22	New Issue	KJ	
B	15.09.09	Dwg Rev updated	KJ	

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153801 MJS
16-11-29



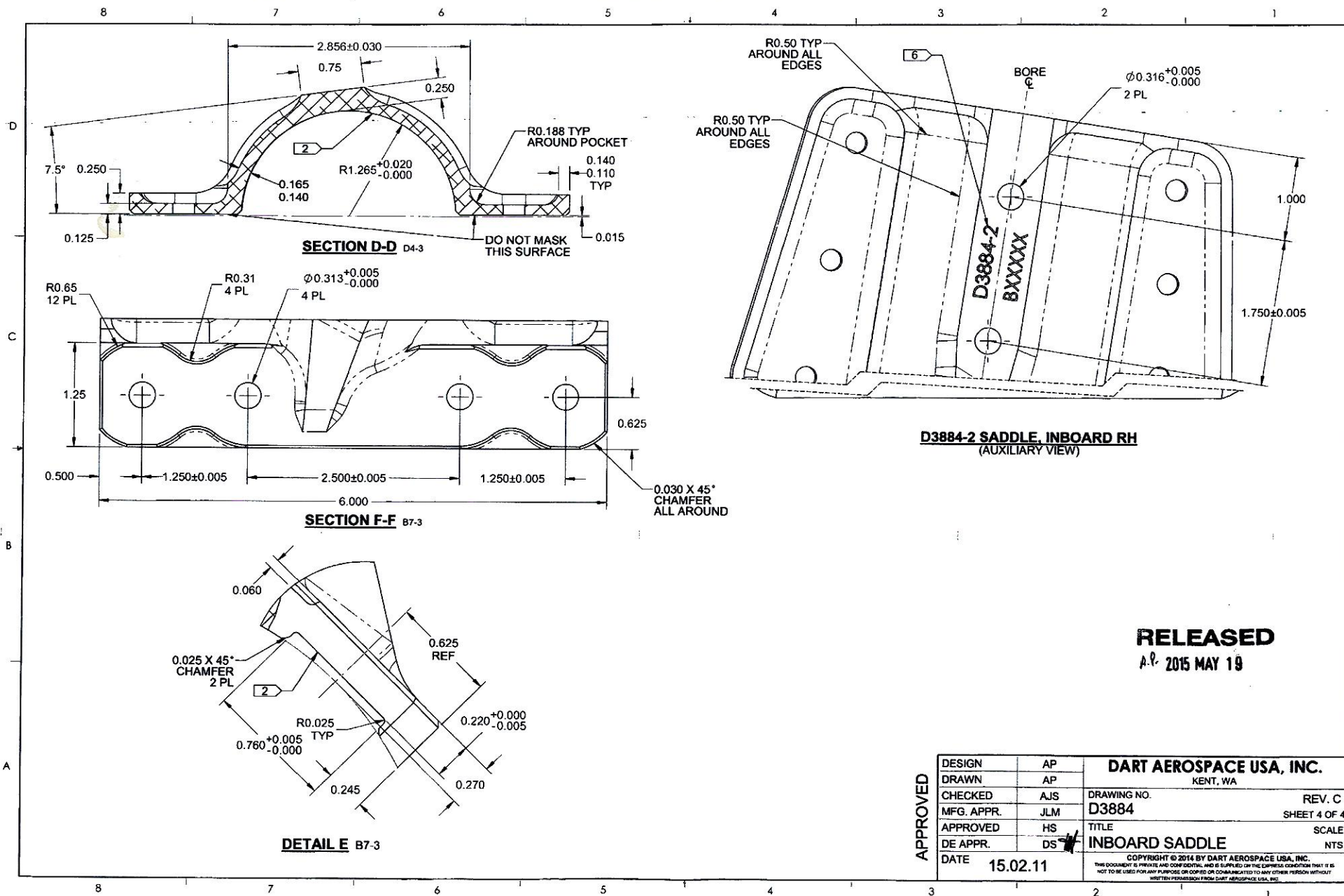
D3884-2 SADDLE, INBOARD RH

NOTES:

- 1) MATERIAL: 7075-T7351 ALUMINUM PER AMS-QQ-A-250/12, OR QQ-A-250/12 OR ASTM B209 (REF DART SPEC. D6101-015)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
MASK INSIDE SURFACES OF SADDLE PRIOR TO APPLICATION OF POWDER COAT
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO
MAX. DEPTH OF 0.010 WITH A MIN. TOOL RAD OF R0.010
- 7) WEIGHT: 1.03 lbs
- 8) ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD R0.250
- 9) ALL NON-DIMENSIONED FEATURES DEFINED PER DRAWING FILE "D3884-2-REVC.SLDPRT"

RELEASE
A.P. 2015 MAY 19

DESIGN	AP	DART AEROSPACE USA, INC. KENT, WA	
DRAWN	AP		
CHECKED	AJS	DRAWING NO.	REV. C
MFG. APPR.	JLM	D3884	SHEET 3 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	INBOARD SADDLE	NTS
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RELEASED
A.P. 2015 MAY 19

APPROVED	DESIGN	AP	DART AEROSPACE USA, INC. KENT, WA	
	DRAWN	AP		
	CHECKED	AJS	DRAWING NO.	REV. C
	MFG. APPR.	JLM	D3884	SHEET 4 OF 4
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	INBOARD SADDLE	NTS
	DATE	15.02.11	COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	